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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/578,440	06/23/2006	Shoji Aihara	P29897	9055
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EXAMINER MICHALSKI, SEAN M				
ART UNIT		PAPER NUMBER		
3724				
NOTIFICATION DATE		DELIVERY MODE		
09/19/2008		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/578,440

Applicant(s)

AIHARA ET AL.

Examiner

SEAN M. MICHALSKI

Art Unit

3724

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 1-7, 9-11, 14-16 and 18-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8, 12, 13 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/S508)
- Paper No(s)/Mail Date 8/4/2008
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Claims 1-7, 9-11, 14-16 and 18-21 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected group and/or species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 07/07/2008.
2. In response to the allegation that there is no burden in examining the groups together, It is noted that there is a severe burden, since each group has different scope, and is drawn to different features which must be analyzed separately. Indeed the very bulk of the specification speaks to the difficulty in properly analyzing each claim properly. This burden is severely exacerbated by the poor state of the specification and claims, which should be taken into consideration as well.
3. In response to the allegation that the species requirement is not proper, this is not persuasive. Each species is different from each other species, and the search for one will not reveal or render obvious each other species. If a generic claim is held allowable then of course a reasonable number of species claims will be considered.

Specification

4. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is

requested in correcting any errors of which applicant may become aware in the specification.

5. The specification is objected to for not being clearly, concisely and exactly written. It is too confusing and rambling to meet the requirements of 35 USC 112 first paragraph. A substitute specification in proper idiomatic English and in compliance with 37 CFR 1.52(a) and (b) is required. The substitute specification filed must be accompanied by a statement that it contains no new matter.

35 U.S.C. 112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms." The specification is replete with terms which are not clear, concise and exact. The specification should be replaced entirely in order to comply with 35 U.S.C. 112, first paragraph. Examples of some unclear, inexact or verbose terms used in the specification are: at least substantially the entirety of pages 3-9 of the specification, which are extremely unclear. For example, paragraph 27 conveys no usable information about the product/process of the alleged invention.

On pages 18 and 19 applicant attempts to define directions, but does an inadequate job. The X direction is "a direction in which a material is sent" and the forward direction is "a direction in which the material advances...". These definitions are not understood. Paragraph [0052] also does not make any sense. It is noted that the failure by examiner to specifically enumerate every error in the specification.

IN page 23 of the specification, applicant states that "thus clearances between the upper rear sides of the guide posts and the upper sides of the slide sleeves, respectively, are kept zero" which is nonsense. What does "are kept zero" refer to? This

is completely worthless in attempting to ascertain what the invention pertains to, how it is implemented, and how it works.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 8, 12, 13, and 17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Specifically, one example is that on Page 22, it is alleged that "it is possible to make the tension of the band saw blade much larger...to control bending...and...perform heavy cutting with ...accuracy and efficiency.", however there is no description that explains how this is accomplished or what is even being used to accomplish these features. These elements are not explained in enough detail to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Additionally, in claims 12 and 17, applicant claims that the buffer device is a vibration generating device, where vibrations are applied to the saw blade driving unit. This is not described in the specification in such a way that a person having ordinary skill in the art would be capable of making and using the invention. There is no

description of how such a device would work, how it could be attached, and how it could be produced. This element is not enabled. It differs significantly in operation than the other disclosed species such as "a resin having elasticity" (from claim 9).

Additionally, the step of "coupling the saw blade driving unit to the shaft of the driving wheel in the floating state in the saw blade rotating direction with respect to the saw blade housing" is not enabled. There is no diagram or explanation of the method sufficient to explain to one of ordinary skill in the art how to perform this step in accordance with the invention.

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 8, 12, 13 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8 lines 7-9 recite the limitation " coupling the saw blade driving unit to the shaft of the driving wheel in the floating state in the saw blade rotating direction with respect to the saw blade housing", which is indefinite. What is "with respect to the saw blade housing". What is meant by "in the saw blade rotating direction"? What does the "floating state" pertain to? The claim is as a result wholly indefinite, the metes and bounds of the claim not being sufficiently rendered so as to inform a person of ordinary skill in the art. Claim 12 is indefinite since it depends therefrom.

At least the titling of claim 8 is incongruent, and also the claim is not understood. The preamble requires a "...blade driving method...", yet an assembly step is recited "coupling the saw blade driving unit to the shaft...". Is this a method of using or a method of assembly? The preamble and ambiguous/ contradictory language makes the claim indefinite.

Claim 13 lines 6-8 recite the limitation "the saw blade driving unit has a floating structure coupled to the shaft of the driving wheel in a floating state relative to the saw blade housing in the saw blade rotating direction". It is unclear how "in a floating state relative to the saw blade housing in the saw blade rotating direction" is to be interpreted. What is "in" the "rotating direction" How is the shaft coupled to the driving wheel in a "floating state"? This claim is indefinite, rendering 17 likewise indefinite, since 17 depends therefrom.

In claim 13, lines 9-10 it is not understood how the buffer part can be "for controlling the saw blade rotating direction of the saw blade driving unit". From the figures and specification it is believed this limitation refers somehow to the fact that the buffer restricts the amount of deflection the driving unit may undergo. The directional limitation is at least very poorly expressed. Some reference to axes may be necessary to express the desired limitation.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 8 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Wells (US 3,830,131).

Wells discloses a band saw machine, method of operating and method of assembling. Wells discloses an endless saw blade (52 figure 1), a driving wheel (43) and a driven wheel (50), a saw blade driving unit (45 figure 1), coupled to the driving wheel (by pulley 48) and in a floating relationship to the Housing (49, 51 is the housing, which is readily floatably movable relative to the driving unit; column 3 lines 1-15). Wells further discloses a buffer part (32, 33 figure 1) which controls the rotating direction of the saw blade (by being present, the buffer part prevents rotation in all three senses- see figure 3). It's presence dampens the reaction force generated by driving of the saw blade, and is provided "at " the saw blade housing (one at the left housing and one at the right housing- see figure 1).

Wells further discloses coupling the saw blade driving unit to the blade. This is inherently disclosed since, as in figure 1, the driving unit is shown connected to the shaft (47) via a pulley (48). The control of the rotation of the blade is automatically provided for by the buffer part 32 and 33, which restrain the rotation of the saw blade about all three axes. When the saw is driven, the buffer part will automatically dampen a reaction force caused by the driving of the saw blade, since they are engaged. If the saw blade will react, the buffer part will absorb some of the force, since they are in constrained contact with each other.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 8, 12, 13 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wells (US 3,830,131) in view of Brandstadter (US 5,178,405).

Wells does not disclose a vibration generating device for applying vibration to the driving unit.

Brandstadter discloses active damping (active control loop) which applies force vibrations to an axle to reduce the vibrations experienced by one or more elements of a device, for improved accuracy and better feel.

It would have been obvious to one of ordinary skill in the art to apply active damping techniques as taught by Brandstadter to the buffer parts of Wells, since doing so would increase the efficiency of the damping/ prevention of rotation therein. Active damping at the buffer parts would have generated vibrations felt at the driving unit, since the buffer part is connected to the driving part, and vibration is transmitted through the connection.

Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SEAN M. MICHALSKI whose telephone number is (571)272-6752. The examiner can normally be reached on M-F 7:30AM - 3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on 571-272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sean M Michalski/
Examiner, Art Unit 3724

/Kenneth Peterson/
Primary Examiner, Art Unit 3724